



BACKGROUND

Temporomandibular joint (TMJ) ankylosis is an extremely disabling affliction that causes problems in mastication, speech, appearance, and hygiene. Trauma is thought to account for approximately 0.4% of ankylosis cases related to the TMJ complex. Early diagnosis and intervention of cases with condylar fracture can be crucial to minimize the potential effects of late complications including ankyloses such as limitation in the opening.

CASE HISTORY

A 68-year-old, Caucasian female presented to a university based TMD Clinic with a chief complaint of limited mouth opening that has been progressively worsening over the past year. The patient's history revealed a past head injury due to a fall which was followed a few weeks later by a limited mouth opening. Maximum opening was 5 mm with slight deviation to the right side upon opening (Fig.1). Palpation of the masticatory muscles elicited bilateral masseter muscle hypertonia without pain.



Fig 1: Initial Maximum opening 5mm



Fig 2: Preop Panoramic radiograph

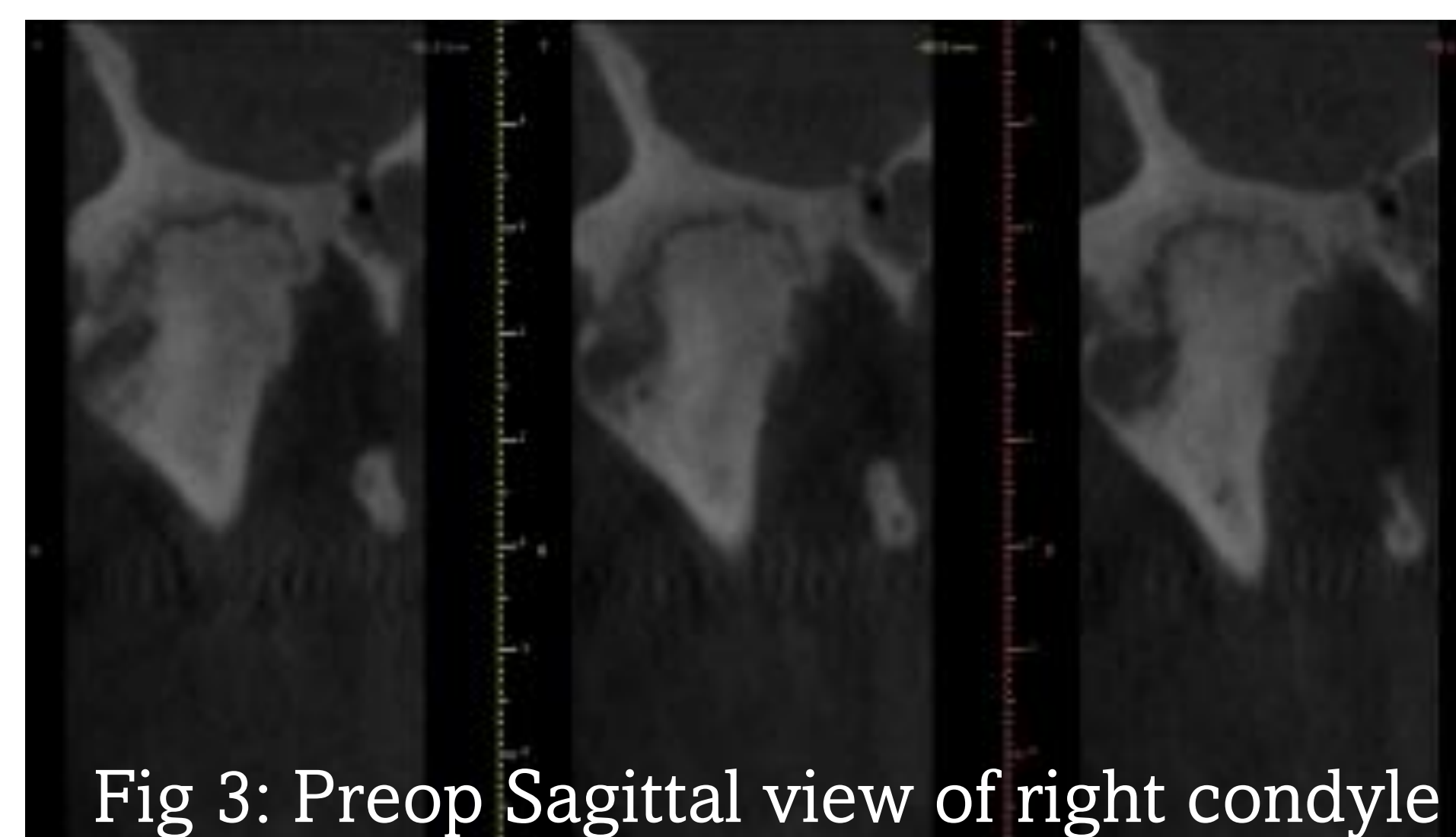


Fig 3: Preop Sagittal view of right condyle

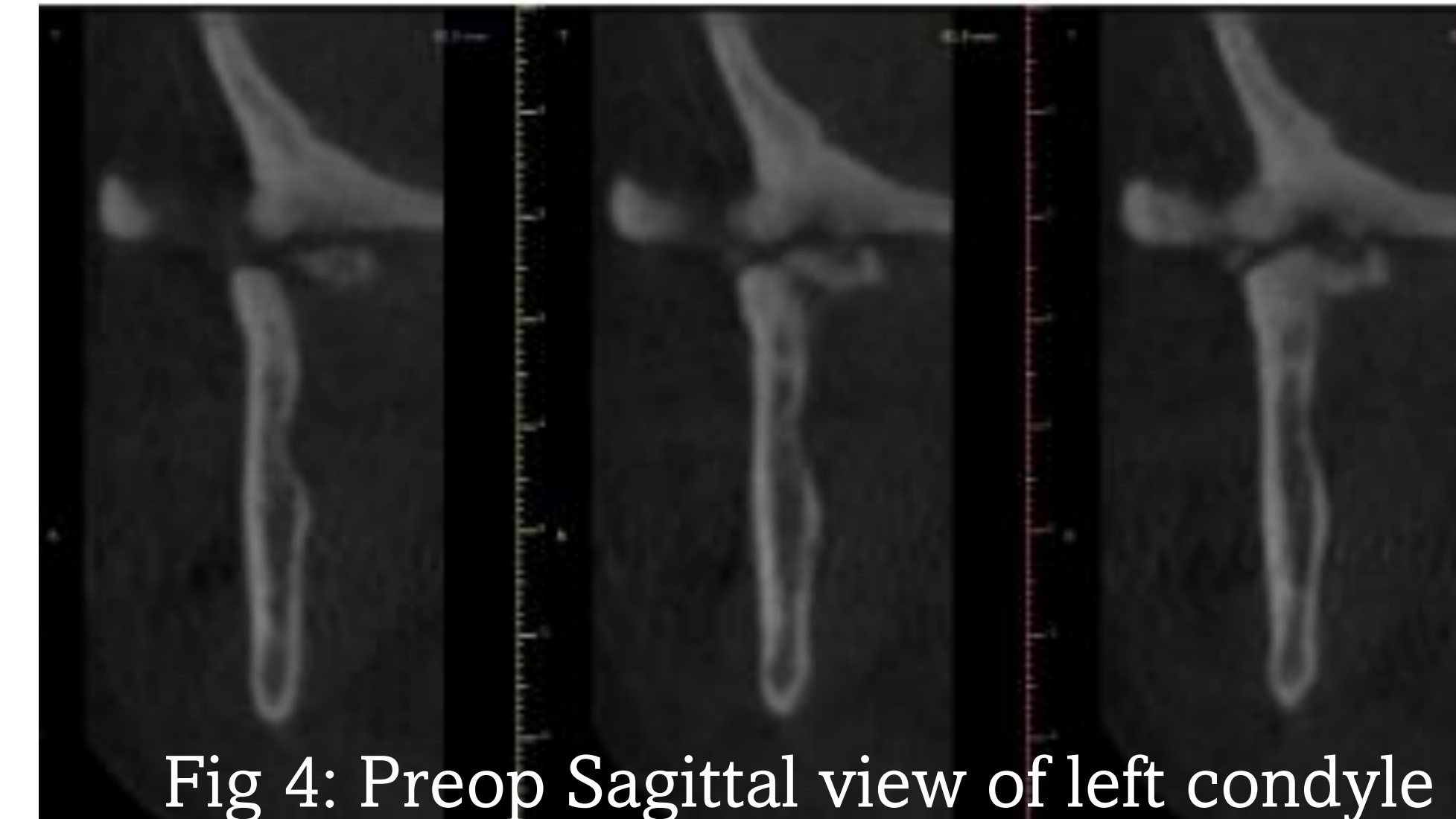


Fig 4: Preop Sagittal view of left condyle

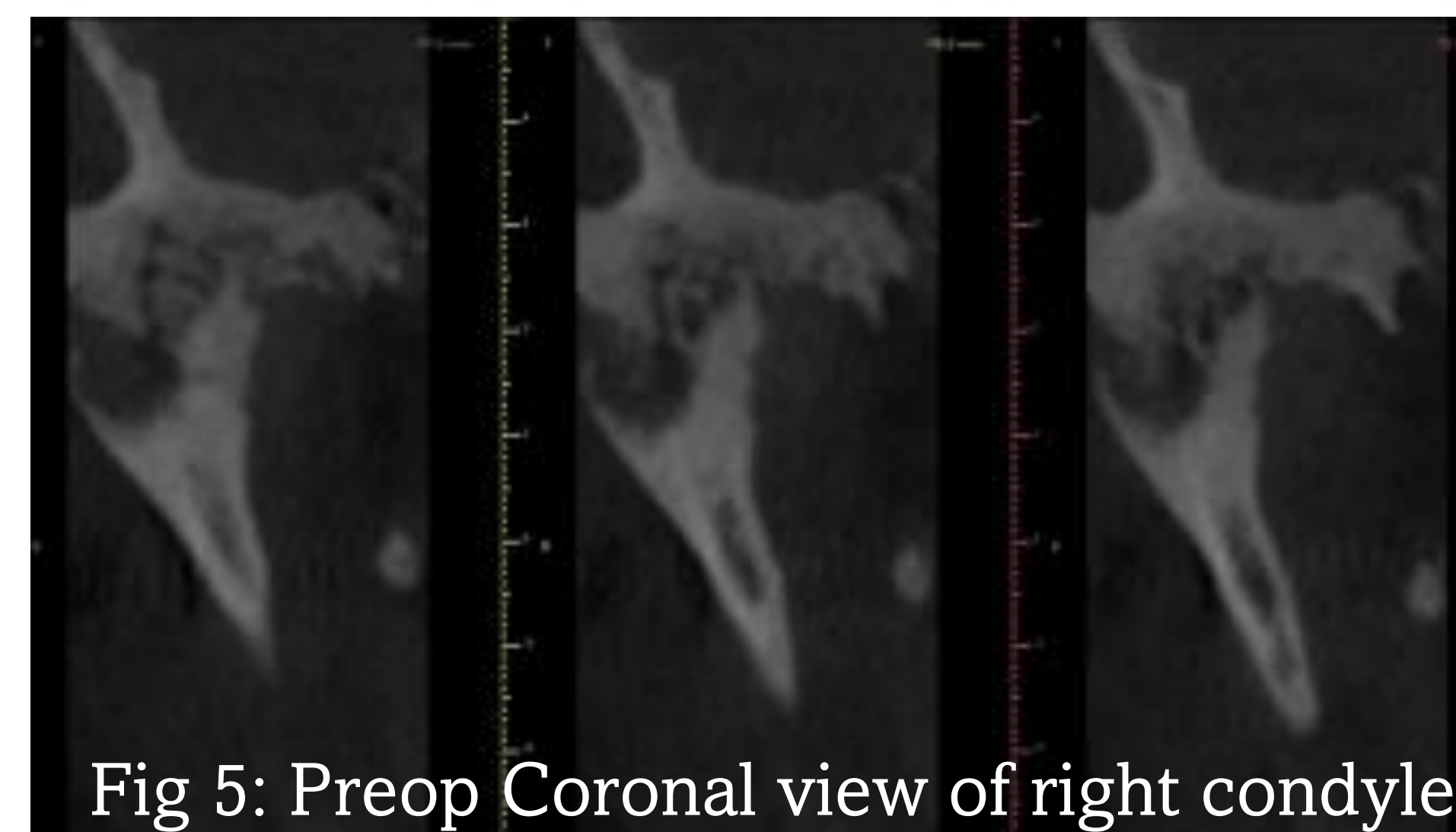


Fig 5: Preop Coronal view of right condyle

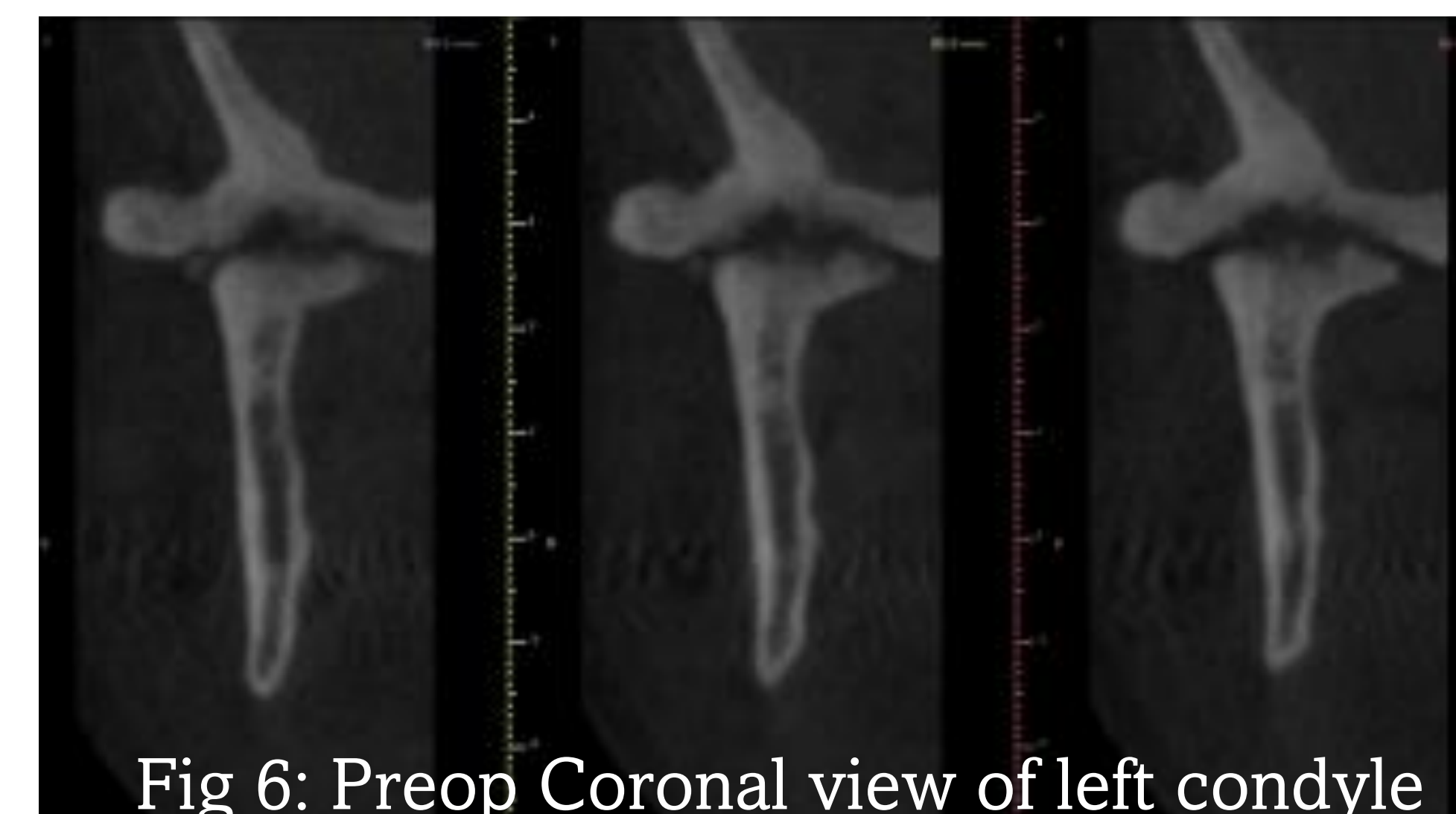


Fig 6: Preop Coronal view of left condyle

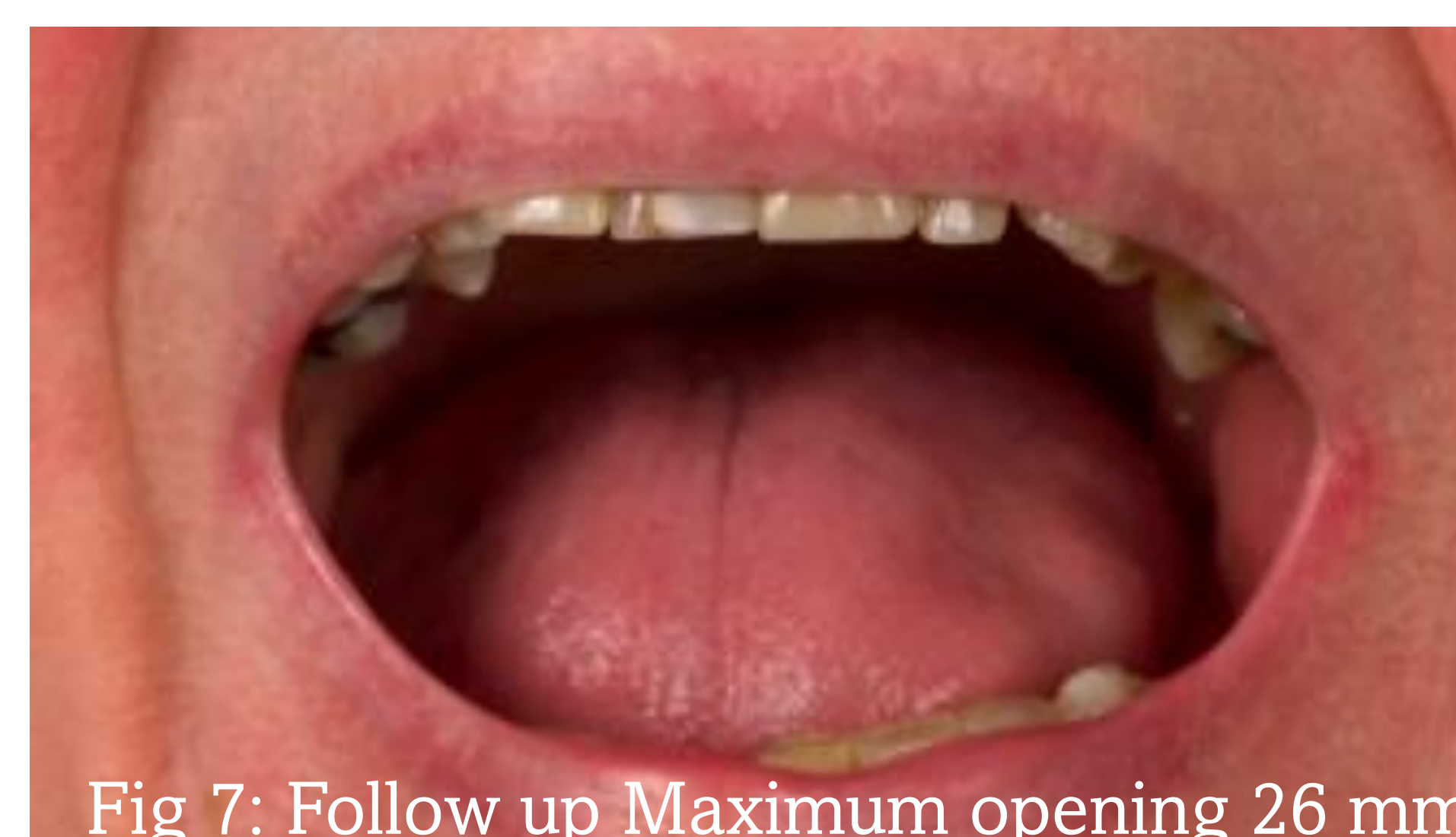


Fig 7: Follow up Maximum opening 26 mm



Fig 8: Follow up Panoramic radiograph

A cone beam computed tomography (CBCT) image revealed lack of radiographic joint space in the right TMJ, and the left condyle had been dislocated inferiorly suggesting a possibility of subcondylar fracture (Fig.2-6).

TREATMENT

Bilateral coronoidectomies and bilateral temporomandibular joint reconstruction were performed. Functional rehabilitation appeared 1 week after surgery, by means of a combination of active and passive exercises. Specifically, the patient was given a TheraBite device and was asked to perform mouth opening exercises. Three-year follow-up revealed a 26 mm maximum opening with stable and repeatable occlusion without deviation (Fig.7) or radiographic complications (Fig.8).

CONCLUSION

Meticulous patient history-taking should be emphasized along with a thorough clinical examination and imaging, following a traumatic event to the head and neck area. The critical factor of successful treatment of TMJ ankylosis, in long term, is early detection, implementation of an intensive physiotherapy program, and good post-operative conduct.

REFERENCES

Powers DB. Classification of Mandibular Condylar Fractures. Atlas Oral Maxillofac Surg Clin North Am. 2017 Mar;25(1):1-10